AMENDMENTS TO THE SPECIFICATION:

Please amend the indicated paragraphs of the specification in accordance with the amendments indicated below.

Page 4: 1st full paragraph, amend as indicated below:

Document DE-A-2 741 090 relates to a device for indicating the state of a match and which includes transmitters and a receiver. The transmitters are located on gloves, masks, [[&c]] etc..

Page 5: 2nd full paragraph, amend as indicated below:

U.S. ~~patent N° 5 334 831~~ Patent No. 5,334,831 describes a device for detecting and quantifying ferrous debris in a fluid. This is a traditional process based on magnetic sensors. The latter's drawback is that they are highly sensitive to disturbances. An optical sensor is used for detecting particles which are caught in a magnetic field. The device takes advantage of the Faraday effect. With the help of this device one may regulate the purity of fluids as used in industrial pneumatic and hydraulic systems.

Pages 5-6: paragraph bridging pages 5 and 6, amend as indicated below:

U.S. ~~patent N° 4 527 153~~ Patent No. 4,527,153 describes a process for detecting the course of an article as equipped with an element. This element is a permanent spherical element enclosed in a capsule of indifferent shape, in such a manner as to leave some play (in the region of the sphere's diameter) in order to allow the sphere to move slightly. The detection area (a few cubic metres) is traversed by an alternating magnetic field, in order to make the sphere vibrate in its capsule. This motion generates an additional magnetic field which may be detected by a magnetic field sensor. Another approach is based on the detection of the sound as produced by the sphere when vibrating in its capsule, with the help of a microphone. Such a device may be used for the prevention of theft in shops.

Pages 6-7: paragraph bridging pages 6 and 7, amend as indicated below:

U.S. ~~patent N° 6 232 879~~ Patent No. 6,232,879 describes a device for the detection in a given area of the crossing of an article as equipped with an element. The article is itself equipped with a wire with a diameter below 100 μm. The wire is sized in such a manner that, when subjected to an electromagnetic wave, it starts resonating and responds with its own electromagnetic wave. This wave has the same frequency as the emitted wave. The magnitude of the back wave is altered by a lower

frequency magnetic field. Thus the receiver receives an amplitude modulated electromagnetic wave. This is an anti-theft device for shops. The system detects the presence of a metal wire with specific properties in a very important area (considering electromagnetic waves may cover vast surfaces). The material's high frequency electromagnetic resonance properties are thus made use of, together with the potential for modulating the material's impedance with the help of a magnetic field.

Page 10: please delete heading after last paragraph which reads:

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

Page 11: 2nd full paragraph, amend as indicated below:

The invention will be explained in greater detail with the help of the appended drawings~~, wherein :~~.

Page 11: After the 2nd full paragraph, insert the heading below:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 13: Before the heading above the first full paragraph, please insert the following heading:

DETAILED DESCRIPTION OF THE INVENTION

Pages 19-20: paragraph bridging pages 19 and 20, amend as indicated below:

Thus the magnetic properties of the target are detected with a magnetic field detector. The aim is to position the target 2 to be studied near the inductance of an oscillating circuit 1. If the target is a magnetic one, its presence will change the impedance of the coil and thus the resonance parameters of the oscillating circuit, that is to say the frequency and amplitude of the obtained wave. One selects for instance a Colpitt type oscillating circuit 1 whose transfer function is known. In effect the choice as implemented for constructing the magnetometer is that of a simple oscillator, built with an reversing switch, a capacitor and a resistance. Then an induction coil and another capacitor are added in order to be able to vary the oscillating frequency and the amplitude of the wave which is obtained when a magnetic item is brought near the induction coil. The induction coil 3 will be the coil as embedded in the breastplate. Thus bringing the Mumétal® strip 5 near the induction coil 3 will change its impedance as well as the frequency and amplitude of

the wave as produced by the oscillating circuit 1. It is thus possible to detect the presence of the Mumétal® strip [[6]] 5 by simply varying frequency, through the use of a phase locking loop. However, considering it is much simpler to detect amplitude variations, this was the choice implemented. Then a comparator 4 is used to compare the peak value of the wave as obtained from the oscillator to a pre-established reference voltage ~~the peak value of the wave as obtained from the oscillator~~. Fig. 6 shows a block diagram of the magnetometer, wherein one may note that the output signal from the oscillator is first converted with a diode and a capacitor (converter 6) in order to facilitate a comparison between DC tensions.

Pages 22-23: paragraph bridging pages 22 and 23, amend as indicated below:

In order to compensate for the sensor offset and gain errors, use is made of a double differential element which comprises two capacitances. One is used as a reference and is covered with a fine oxide layer ϵ_{ref} C_{ref} and the other is the sensitive element ϵ_{sensor} C_{sensor}, that is to say the breastplace capacitance as hereabove described.

The gated capacity circuit from C_{sensor} to C_{ref} forms a non inverter amplifier, whereas the circuit from C_{ref} to C_1 is an inverter amplifier. The transfer function for this

circuitry is the following :

$$V_{out}=V_{Ref\,A}\frac{C_{sensor}}{C_1}-V_{ref\,B}\frac{C_{ref}}{C_1}$$

wherein V_{refA} and V_{refB} may be used to adjust the output offset as caused by a discrepancy between C_{sensor} and C_{ref}. The circuit's response time is given by the time constant :

$$\tau=\frac{1}{f_c}\frac{C_2}{C_1}$$

wherein f_c is the clock frequency.

Pages 25-26: paragraph bridging pages 25 and 26, amend as indicated below:

As to the multiplier, one may for instance suggest a simple Gilbert cell as shown in Fig. 10. The output, which is the signal from the oscillator as multiplied by itself, is the difference between voltages at the terminals of the two resistors. The arrangement may be refined when the two fighters are equipped with systems

which react to varying thresholdings, coupled with Mumétal® strips having different characteristics. In effect, if the defendant for instance falls to the ground with his face forward, one of his hands being near the breastplate, the solution according to the state of the art is to detect a blow delivered with the fist. ~~Now the present paragraph 12) quotes~~ Based upon an example giving characteristics of Mumétal® ~~wherein~~ mentioned above herein, one can see that it is possible to set various permeabilities for this alloy. A more thorough study shows that it is easy to make good use of this feature to solve the problem. Briefly, one may however add that the two electronic systems may work at different frequencies. One might even distinguish between each of the four hands which are present on the tatami.

ABSTRACT AMENDMENTS

Please cancel the present abstract and replace the abstract with the cleanly typed substitute abstract submitted on the following separate page.